

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A process for preparing polymer or food grade hydrocarbon solvents of naphtha range containing very low aromatics from naphtha range petroleum stock, said process comprising the steps of:
 - a. heating the naphtha range petroleum feed stock to a temperature in the range of 70° - 180 °C;
 - b. adding stoichiometric amount of hydrogen to the naphtha range petroleum feed stock at a pressure between [[about]] 5 to 30 bar;
 - c. passing the mixture of step (b) through a reactor having a nickel based catalyst;
 - d. removing any excess hydrogen to obtain the polymer or food grade hydrocarbon solvents of naphtha range containing very low aromatics.
2. (Previously Presented) The process as claimed in claim 1, wherein the naphtha range petroleum feed stock is a raffinate stream obtained from solvent extraction units employed for recovery of aromatics from reformat.
3. (Previously Presented) The process as claimed in claim 2, wherein the raffinate stream has sulfur content less than 50ppm.
4. (Previously Presented) The process as claimed in claim 2, wherein the raffinate stream has aromatics content less than 20% by wt.
5. (Previously Presented) The process as claimed in claim 8, wherein the raffinate stock has benzene content less than 10% by wt.

6. (Previously Presented) The process as claimed in claim 2, wherein the raffinate stream has boiling point in the range of C_5 to 110°C .
7. (Previously Presented) The process as claimed in claim 1, wherein the raffinate stock has boiling point in the range of 63° - 70°C .
8. (Currently Amended) The process as claimed in claim 2, wherein the raffinate stream has ~~[[about]]~~ 4 – 7% by wt benzene.
9. (Previously Presented) The process as claimed in claim 1, wherein the nickel based catalyst is nickel-alumina catalyst having nickel supported on alumina.
10. (Currently Amended) The process as claimed in claim 1, wherein nickel loading on alumina is ~~[[about]]~~ 10 to 70% by wt.
11. (Currently Amended) The process as claimed in claim 9, wherein the metal surface area of the nickel-alumina catalyst is ~~[[about]]~~ 10 – 20 m^2/g .
12. (Currently Amended) The process as claimed in claim 9, wherein the physical surface area of the nickel-alumina catalyst is about 120 – 200 m^2/g and the pore volume of the catalyst is ~~[[about]]~~ 0.2 – 0.3 cc/gm .
13. (Canceled)
14. (Previously Presented) The process according to claim 1 wherein the polymer or food grade hydrocarbon solvents thus obtained contains nil olefins, Sulfur less than 1 ppm and benzene less than 20 ppm.

15. (Previously Presented) The process according to claim 1, wherein the naphtha range petroleum feed stock is a low value raffinate stream obtained from BTX extraction column.
16. (Previously Presented) The process according to claim 1, wherein the naphtha range petroleum feed stock has maximum 20 wt% aromatics and 10 wt% benzene.
17. (Previously Presented) The process according to claim 1, wherein step (c) is carried out under hydrogen environment at temperature in the range of 80 - 150°C, and pressure in the range of 10 to 20 bar.
18. (Canceled)
19. (Previously Presented) The process according to claim 1, wherein the nickel based catalyst is oxidized and pre-reduced before loading into the reactor.
20. (Canceled)
21. (Previously presented) The process as claimed in claim 3, wherein the raffinate stream has sulfur content less than 5 ppm.
22. (Previously presented) The process as claimed in claim 3, wherein the raffinate stream has sulfur content less than 1 ppm.
23. (Previously presented) The process as claimed in claim 4, wherein the raffinate stream has aromatics content less than 10% by wt.
24. (Currently Amended) The process as claimed in claim 10, wherein nickel loading on alumina is [[about]] 30 to 60% by wt.

25. (Previously presented) The process as claimed in claim 15, wherein the BTX extraction column is an Udex unit.
26. (Original) The process as claimed in claim 1, wherein the step of adding hydrogen is such as to limit the amount of hydrogen to the stoichiometric amount of hydrogen.